ABSTRACT OF THE DISCLOSURE

A calculation is made to find a degree of certainty about malignancy, which degree represents a level of possibility of a pattern being a malignant pattern, with respect to an abnormal pattern candidate having been detected in accordance with a medical image signal representing a medical image. The calculation is made in accordance with an index value representing a feature of the abnormal pattern candidate and in accordance with a correlation between the index value and possibility of a pattern being a malignant pattern, which correlation has been obtained from clinical results. Information representing the degree of certainty about malignancy with respect to the abnormal pattern candidate is outputted together with the information for specifying the detected abnormal pattern candidate.